The Efficacy of GoLo^{sm} Golf Fitness Using STEP© Principles in Improving Driving Distance, Accuracy, and Efficiency During the Swing

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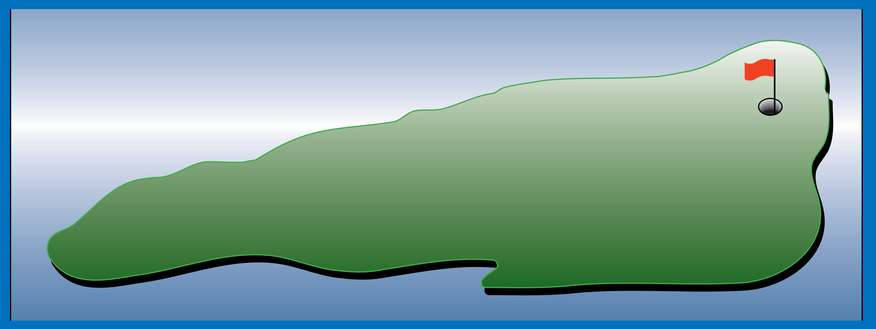
Introduction: Golf swings have been analyzed in previous research but there has been no research studying the outcome of kinematics and biomechanics on drive distance and accuracy. Current studies recommend general and specific exercises for golfers to improve their game without regard to the individual. No studies or articles speak specifically to an individual's physical needs for the game of golf, until now.

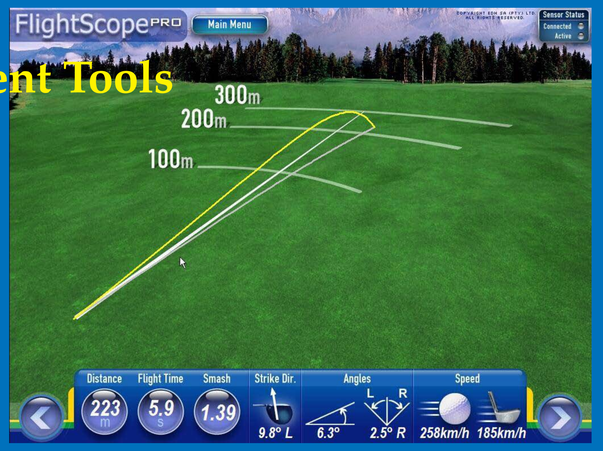


Purpose: This study shows the connection between specifically designed golf fitness intervention and outcome of the golf drive due to changes occurring in the body from specific golf fitness intervention.

Methodology: This was a single subject design with repeated measures and two design phases. Three subjects assigned to 1 of 3 exercise locations (in clinic, at home, at gym) were measured repeatedly before exercise intervention (baseline) and then measured repeatedly during exercise intervention.

Measurement Tools

Polhemus Liberty electromagnetic sensing device and JZZ Technologies' EFactor software were used to measure the body movement throughout the swing at 240 frames/second.



FlightScope RADAR was used to measure the drive distance and accuracy.

Procedure: After baseline measures, each subject received a GoLo GolfBody Screen^{sm} where his body was evaluated throughout the swing. Physical constraints limiting the swing were analyzed. An exercise program specific for the individual and specific to golf using STEP© principles was taught. Each subject performed his program 3X/week; one subject at home, one at the gym, and one at the clinic with the researcher/ Certified Golf Fitness Specialist. (CGS)

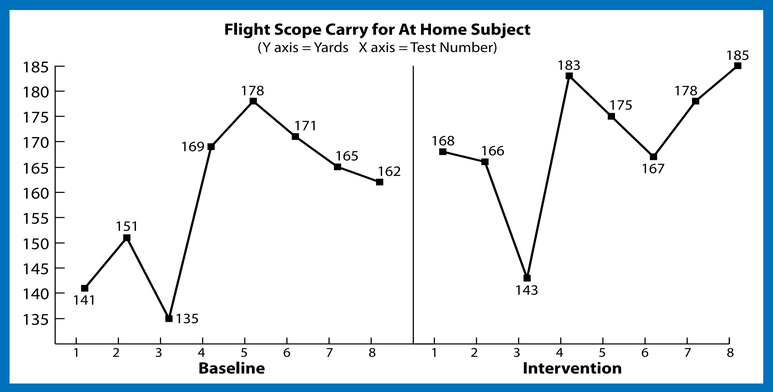
One subject during his GolfBody Screen^{sm}. Notice front elbow, right knee, pelvis, forward head.

Fig 1

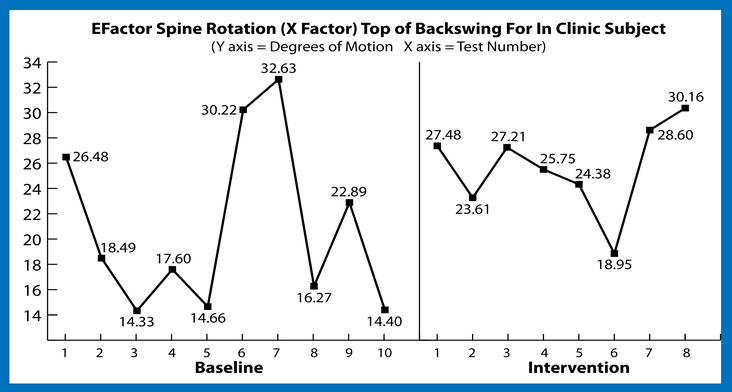
Fig 2

Same subject performing thoracic rotation with extended C-spine, flexed ® knee, controlled rotation of pelvis, and abdominal initiation. (All golf specific.) Dosing for mobility of T-spine (Fig 1), and for strengthening of core at golf spine angle (Fig 2).

Results Abbreviated



The above graph shows the ball landed at shorter distances in **baseline** with a downward distance trend. During **intervention** the ball landed at farther distances with a longer distance trend.



To the left you see the difference between thoracic rotation and pelvic rotation for Top of Backswing. We want to achieve an "X Factor" (or difference) of 30°-35°. At **baseline** the subject's X Factor is sporadic and low. During **intervention** his X Factor approaches 30° and is more consistent between tests. The increase in X Factor affords greater power; the consistency delivers greater accuracy.

Same subject as pictured above after intervention. Notice the straight front elbow, forward pointed flexed ® knee, and rotation of the thorax and pelvis along the sagittal axis of the spine with ~ 30° difference between thorax and pelvis.